

REMARKS

The Office Action of November 20, 2002 has been received and its contents carefully noted.

In view of the foregoing amendments and following representations, reconsideration and allowance are respectfully requested.

The specification has been amended and proposed drawing corrections to Figs. 1-6, 9, 11, and 13 have been submitted to overcome the objections raised by the Examiner. No new matter is believed to have been added. The substitute pages correspond to the marked-up version.

Claim 1 as rewritten now overcomes the art of record including Moretto in view of Rolfes and/or Mitchell.

None of these references individually or in combination would have taught or suggested to a person having ordinary skill in the art a gear counter mechanism which includes a gear having a sequentially changing visual color coding system; nor would they have taught or suggested the claimed inclusion of the cap with a window for viewing the sequentially changing visual color coding system.

Each of claims 3-6 have been amended to correct an obvious typographical error by changing ";" to --:--. Such change does

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not fall within the bounds of prosecution history estoppel encompassed by the Supreme Court in Festo v. Shoketsu.

Likewise, duplicate and missing reference numbers have been added to Figs. 1-6, 9, 11, and 13, and the position of a lead line for 22 in Fig. 6 has been moved, which changes likewise do not fall within the ambit of Festo as the changes, additions, and subtractions of reference numbers merely correct obvious oversights readily apparent to a person having ordinary skill in the art, and were simply objectionable, rather than indefinite within the meaning of 35 U.S.C § 112.

Examiner Cecil is requested to approve the corrections in his response.

As all of the claims are now dependent upon claim 1 or a claim dependent upon claim 1, each of the claims should be allowable in that they also avoid the art of record whether individually or in combination.

It is now believed that this application is in condition for allowance and an early and favorable action is earnestly solicited.

It is believed that no fee is due for this submission. Should that determination be incorrect, however, the Examiner is hereby authorized to charge any deficiencies to our Deposit Account No. 19-2105, and notify the undersigned in due course.

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Should any outstanding formal matters or other issues remain, please call Terrence Brown to resolve such.

Respectfully submitted,

Date:

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VERSION SHOWING CHANGES MADE TO THE CLAIMS

1. (amended) In a fluid treatment device of the type comprising a container, said container having a filter, and said container having first and second chambers, the improvement wherein:

- a) said filter is positioned in said first chamber;
- b) a connecting element for connecting said first chamber to said second chamber for permitting fluid to travel from said first chamber through said filter and into said second chamber is provided;
- c) a removable and replaceable cap is provided for said first chamber;
- d) said removable and replaceable cap has a gear counter mechanism;
- e) [an] a ratchet indexing element is provided on said removable and replaceable cap for indexing said gear counter mechanism when said removable and replaceable cap is replaced after said removable and replaceable cap has been removed; [and]
- f) said gear counter mechanism [has a] includes a gear having a sequentially changing visual color coding system for indicating the present status of the filter[.]; and
- g) said cap has a window for viewing said sequentially changing visual color coding system.

2. (amended) In fluid treatment device as in Claim 1, and wherein: [of the type comprising a container, said container having a filter, said container having first and second chambers the improvement wherein:

- a) said filter is positioned in said first chamber;
- b) a connecting element connects said first chamber to said second chamber for permitting fluid to travel from said first chamber through said filter and into said second chamber;
- c) a removable and replaceable cap is provided for said first chamber;
- d) said removable and replaceable cap has a counter mechanism;
- e) an indexing element is provided on said removable and replaceable cap for indexing said counter mechanism when said removable and replaceable cap is replaced after said removable and replaceable cap is removed; and]

a [f)] said gear counter mechanism has at least two selective counter cycles as determined by the amount of filtration required by law pertaining to the required water purity.

3. A fluid treatment device as in claim 1, and wherein[;] :

- a) said visual color coding system includes at least two color changes.

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4. A fluid treatment device as in claim 1, and wherein[;] :
a) said visual color coding system includes green, yellow, and red color codes.

5. A fluid treatment device as in claim 4, and wherein[;] :
a) said green, yellow, and red color codes are in sequence starting with green and ending with red.

6. A fluid treatment device as in claim 2, and including[;] :
a) said at least two selective counter cycles include at least two ratchet wheels, and
b) a selective pawl follower for selecting one of said at least two ratchet wheels.

Claims 7-10 have been cancelled.

Claims 11-15 have been added.

VERSION SHOWING CHANGES MADE TO SPECIFICATION

BACKGROUND OF THE INVENTION

[0002] Fluid treatment devices are known and used in homes for removing contaminants from normal tap water. Since the filters fail to perform after many successive uses, an indicator must be visible and readable to the user to permit the user to determine when to replace a filter.

Duncan, U.S. Patent 5,190,643; Gebhard, U.S. Patent No. 6,033,557; Tanner, U.S. Patent No. 5,882,507; Lund, U.S. Patent No. 5,785,844; Hofman [Hoffman], U.S. Patent No. 6,074,550; Huang et al., U.S. Patent No. 5,873,995; Levene, U.S. Patent No. 5,665,224; Lund [Land], U.S. Patent No. 5,536,394 and Bailey, U.S. Patent No. 6,001,249 all pertain to filter systems with an indicator to tell when the filters needs to be replaced. Such devices include float mechanisms, ratchet and pawl mechanisms and the like.

OBJECTS AND SUMMARY OF THE INVENTION

[0003] It is an object of this invention to provide a device for fluid treatment which will enable the user to determine at any time the status of the filter by color coding.

A further object of this invention is to provide a fluid filter usage indicating mechanism which will permit the consumer to change the cycle depending upon the statutory usage required in various countries around the world where replacement filters must be changed according to existing regulations which are known to vary from country to country.

DETAILED DESCRIPTION OF THE INVENTION

FIGURES 1, 2, AND 3

[0026] Figures 1, 2, and 3 show a fluid treatment device D. The fluid treatment device D has a removable and replaceable cap C having an outer lid X and an inner lid Z [Y].

In the embodiment shown, the removable and replaceable cap C has [as] a generally elliptical shape. The device D includes a pouring spout P which is formed and extends along one side thereof and a handle H on the opposite side thereof. A lip 2 is formed on the removable and replaceable inner lid Z [Y]. A window W located on the removable and replaceable cap C for viewing a painted consumer indicator dial is subsequently described.

[0027] Figure 3 shows a filter 4 placed between first chamber 6 and second chamber 8. When the consumer wants to drink filtered water, the consumer lifts lid Z [Y], and unfiltered water is poured into first chamber 6, the water goes through filter 4 and into the second chamber 8, thereby being filtered.

FIGURES 4 THROUGH 15

[0028] Figure 4, shows a chassis bottom cover 10 of mechanism M.

The chassis 10 comprises a gear and ratchet plate 12 and pawl follower 14 and a hub 16. The gear and ratchet plate 12 is secured to the hub 16 by a lock washer 36 or a nut or other fastener. The gear and ratchet plate 12 includes gear teeth 18, a plurality of ratchet wheels 20 and 22, a slot 24, a stop 25 and color indicator 26 (Figure 5). A return spring 28 engages with the gear

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teeth 18 causing the gear teeth 18 to go counterclockwise. The follower 14 can be set at the large diameter ratchet wheel 20 or can be set at the smaller diameter 22, depending on the filter cycle used.

[0029] Figure 6 shows the pawl follower 14 and an enlarged fragment 30 of this assembly. A portion 32 rides over portion 34 and, when depressed, indexes either ratchet wheel 20 or ratchet wheel 22. The lock washer 36 locks spindle 38 so every part will be secured when the lid Z [Y] is removed or replaced on the cap C.

[0030] Follower 14 is positioned on the teeth 39 [38] of gear 22. A return arm 40 is set at the end of slot 24. A reset spring 42 is positioned on pin 44 and engages in hole 46. A pawl 48 mounted on pin 50 engages teeth 18 of the gear and ratchet plate 12. The return arm 40 is fixed on spindle 38. The reset spring 42 is mounted on pin 52. Pawl followers 14 is mounted on pin 54 and has a slot 56. An opening 58 in the pawl and ratchet 14 engages a push button 60 having a cam top 62 and a bottom projection 64 which enters opening 66. The button 60 is received in a cap 68 of a chassis cover 70.

Bottom projection 64 is raised upwardly into opening 58 causing the pawl and ratchet 14 to moved on pin 54 positioned on slot 56 to index a pawl 72. Pawl and ratchet 14 can be shifted from gear 20 to gear 22, when a pin 74 is moved in a slot or opening 76 from one position 78 to another position 80.

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[0031] It is possible to provide more concentric ratchet wheels than the two shown and additional slots in the opening 76.

The return arm 40 is provided with an opening 82 and mounted on the spindle 38 extending to the gear and ratchet plate 12. The return arm 40 exits from the chassis cover 70 and an opening 84 and is secured by lock washer 36. Cover chassis 70 has a view sleeve 86 with window W. The cover chassis 70 is locked by means of snap members 88 to the chassis. Hub handle 16 is rotated in order to reset the gear and ratchet plate 12. Each time the chassis 10 and its assembly are indexed the selective ratchet wheel 20 or 22 causes the color coding indicator 26 on the gear and ratchet plate 12 to be exposed to the window W. As will be noted in Figures 5, 9, and 11, color runs from green in the lighter area G to the darker yellow Y [H] to darkest area red J, thus indicating to the consumer the status of the filter in the device D. Holes 90 mounted with bolt 92 keep the chassis cover on cap C tight.

Operation

[0032] In the operation of the fluid treatment device D, the hub 16 [knob 94] is rotated substantially until the green color indicates at the window W. This begins the sequence of operation of the ratchet and pawl mechanism 20 and 22 depending on which one is used. The pin 74 shifts from position 78 to position 80 in order changes the gearing counter mechanism.

While this invention has been described as having preferred design, it is understood that it capable of further modification, uses and/or adaptations following in general the principle of the invention and including such departures from the present disclosure as come within known or customary practice in art to which the invention pertains, and as may be applied to the essential features set forth, and fall within the scope of the invention or the limits of the appended claims.